

REMARKS

Claims 1-27 are pending in the present application. Claims 1, 3, 6-8, 11-12, and 20-21 were amended. Reconsideration of the claims is respectfully requested.

The office action objected to claim 8 for a typographical error. This error has now been corrected. It is asserted that the objection is overcome.

I. 35 U.S.C. § 112, Second Paragraph

The office action rejected claim 1 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention, citing the lack of antecedent basis for the limitation of "the user interface". This rejection is respectfully traversed.

Claim 1 has been amended to more clearly recite the claimed invention and to provide antecedent basis for the user interface. Therefore the rejection of claim 1 under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 102, Anticipation

The examiner has rejected claims 1-27 under 35 U.S.C. § 102(e) as being anticipated by Woodruff (6,438,711). This rejection is respectfully traversed.

Representative claim 1 recites,

1. (Amended) A computing system aiding in the operation diagnostic and maintenance functions of a remote computing devices, the diagnostic system comprising:

a plurality of remote computing devices coupled to a network, wherein each said remote computing device runs under a respective first boot image;

a process initiator, coupled to a user interface, that allows for the selection of a particular remote computing device;

a download director that controls a download of a maintenance boot image to the particular remote computing device via the network;

a reboot director connected to initiate a reboot process of the particular remote computing device;

wherein said process initiator, said download director, and said reboot director are connected such that, upon initiation by said process initiator, said download director downloads a temporary boot image to the particular remote computing device and said reboot director causes the particular remote computing device to reboot using said temporary boot image, then upon completion of a given task, said download director downloads said respective first boot image to the particular remote computing device and said reboot director causes the particular remote computing device to reboot using said first boot image.

In this claim, it is notable that the recited components are connected to (a) download and boot a temporary boot image, (b) perform a task, and (c) reload and boot the original boot image.

As to claims 1-27, the Office Action states:

Regarding claim 1, Woodruff discloses a computing system aiding in the operation diagnostic and maintenance functions of a remote computing devices, the remote computing devices coupled to a network and running under a first boot image, the diagnostic system comprising:

a process initiator that allows for the selection of a particular remote computing device [column 2, lines 63-67];

a download director [system status provider], communicatively coupled to a user interface, that controls a download of a maintenance boot image to the particular remote computing device via the network [column 3, lines 1-14 and column 6, lines 8-21];

a first reboot director [session manager] that initiates a first reboot process [download and execution of diagnostics code] of the particular remote computing device with the maintenance boot image [column 2, line 65 – column 3, line 14];

a second reboot director [session manager] that initiates a second reboot process [booting of operating system] of the particular remote computing device upon the occurrence of a predetermined event associated with the maintenance boot image prior to the second reboot process and operating with the first boot image subsequent to the second reboot process [operating system is booted when no remote diagnostics are requested, column 6, lines 38-43]; and

the particular remote computing device performing diagnostic or maintenance functions under the maintenance boot image [column 6, lines 44-46].¹

It is noted that the portions of Woodruff cited as reading on the download director and reboot director do not discuss downloading a new boot image.

Instead, these sections of Woodruff state,

The remote management console 120 sends a signal to a shutdown agent on the computer system 110 to initiate a shutdown and reset of the computer system 110. By resetting the computer system 110, the computer system will execute its Basic Input Output System (BIOS) code. The BIOS code includes a boot strap loader. When executed, the boot strap loader puts the computer system 110 in a diagnostic state. The bootstrap loader recognizes when a connection from the remote management console 120 has been established. The boot strap loader may be used to authorize a diagnostic session request from the remote management console 120, provide the remote management console 120 with information about the computer system 110, and provide support in downloading diagnostic software code from the remote management console 120 directly into a memory in the computer system 110. The diagnostic software code may be executed by a processor (not shown) in

¹ Office Action dated December 1, 2004, page 3

the computer system 110 to generate a diagnostic report of the condition of the computer system 110 to the remote management console 120.

Woodruff will reboot, but will apparently do so with its original boot image. Thus, it appears that while both Woodruff and the present invention are both directed to remotely managing computer systems, they are not identical. It appears that both Woodruff and the present invention can manage problems in hardware, since a diagnostic program can access hardware components, even without an operating system, by going through the BIOS and using I/O ports and interrupts. However, it is submitted that only the claimed invention can correct a problem in which the operating system itself is corrupted, such as through a malicious virus. When this happens, only the present invention can install and run a new boot image, thus being able to recover from such an attack without on-site assistance.

It is submitted that the arguments above show the distinctions between Woodruff and the claimed invention for all of the independent claims and also for their dependent claims. Additionally, some of the dependent claims recite other additional combinations of features not suggested by the reference.

For example, claim 3 recites that *"a particular temporary boot image from among a plurality of boot images"* is downloaded for the diagnostics. It is submitted that Woodruff does not show downloading an image and it does not show that a plurality of images can be downloaded.

Claim 4 recites, *"each of the plurality of boot images is operable to perform a particular maintenance or diagnostic task on the particular remote computing device"*. Woodruff is not downloading a boot image and so cannot choose between a number of boot images that manage different tasks.

Therefore, the rejection of claims 1-27 under 35 U.S.C. § 102 has been overcome.

Furthermore, Woodruff does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. Absent the examiner pointing out some teaching or incentive to implement the download of a new boot image in Woodruff, one of ordinary skill in the art would not be led to modify Woodruff to reach the present invention when the reference is examined as a whole. It is submitted that the presently claimed invention can be reached only through an improper use of hindsight on

Woodruff, using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

III. Conclusion

It is respectfully urged that the subject application is patentable over Woodruff and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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